

BAW56W,BAV70W,BAV99W,BAL99W

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100Volt **POWER** 200mWatt

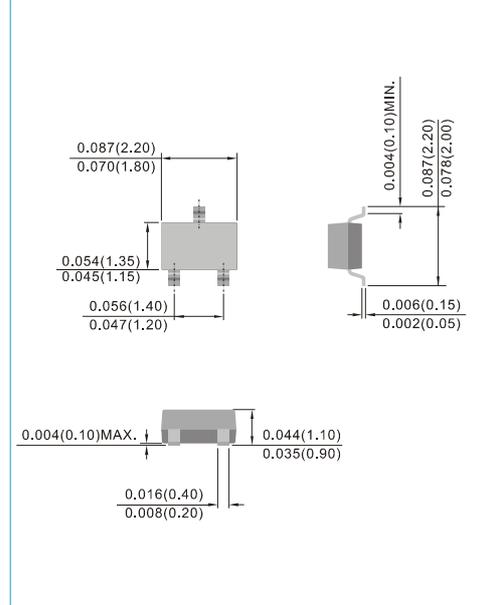
SOT-323 Unit : inch(mm)

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: SOT-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.005 grams

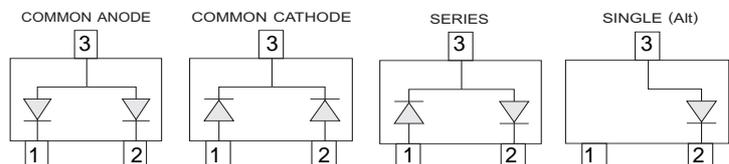


MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | BAW56W | BAV70W | BAV99W | BAL99W | UNITS |
|----------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------|--------|-------------|--------|
| Marking Code | | JC | JA | JB | JF | |
| Reverse Voltage | V _R | 75 | | | | V |
| Peak Reverse Voltage | V _{RM} | 100 | | | | V |
| Rectified Current (Average), Half Wave Rectification with Resistive Load and f >=50 Hz | I _o | 150 | | | | mA |
| Peak Forward Surge Current,0.001ms | I _{FSM} | 4.0 | | | | A |
| Power Dissipation Derate Above 25°C | P _{TOT} | 200 | | | | mW |
| Maximum Forward Voltage | V _F | 0.715 @ I _F =0.001A 0.855 @ I _F =0.01A 1.0 @ I _F =0.05A 1.25 @ I _F =0.15A | | | | V |
| Maximum DC Reverse Current at 25V 75V | I _R | 0.03 2.5 | | | | μA |
| Maximum Junction Capacitance(Notes 1) | C _J | 1.5 | | | | pF |
| Maximum Reverse Recovery Time (Notes 2) | T _{RR} | 4.0 | | | | ns |
| Typical Thermal Resistance, Junction to Ambient(Notes 3) Junction to Case (Notes 4) | R _{θJA} R _{θJC} | 625 250 | | | | °C / W |
| Junction Temperature Range | T _J | -55 to +150 | | | | °C |
| Circuit Figure | | Common Anode | Common Cathode | Series | Single(Alt) | |

NOTE:

1. C_J at V_R=0, f=1MHZ
2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω
3. Mounted on minimum pad.
4. Mounted on 48 cm² PCB.



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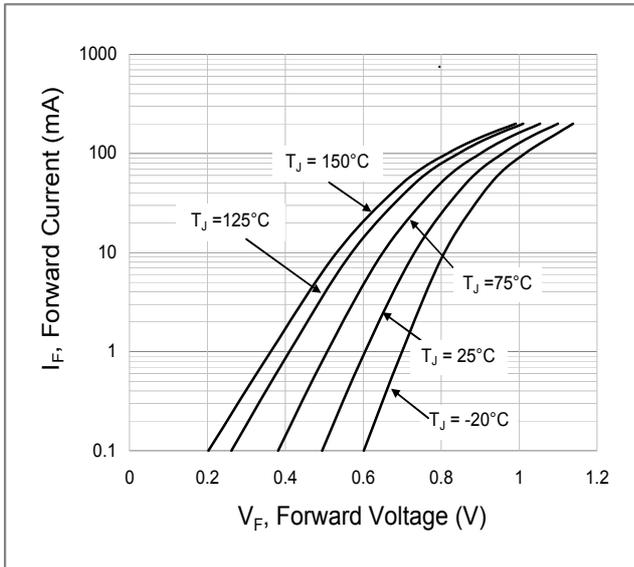


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

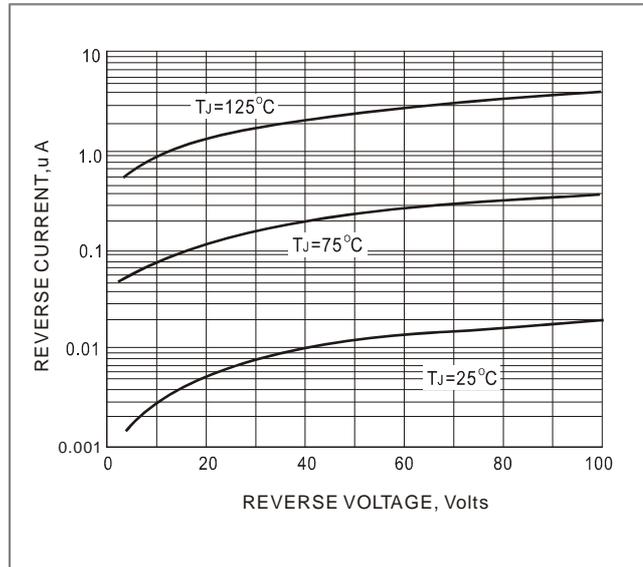


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

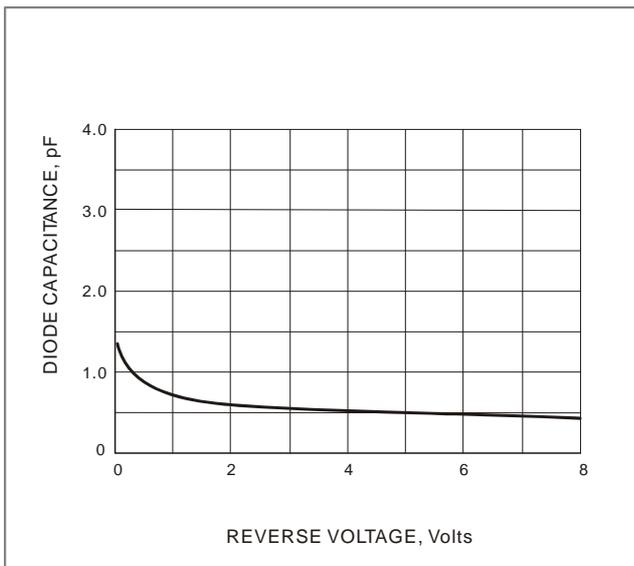


FIG. 3 TYPICAL JUNCTION CAPACITANCE

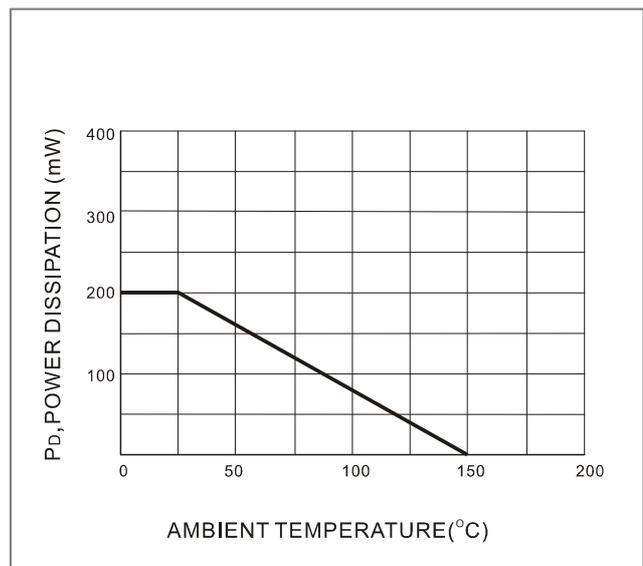


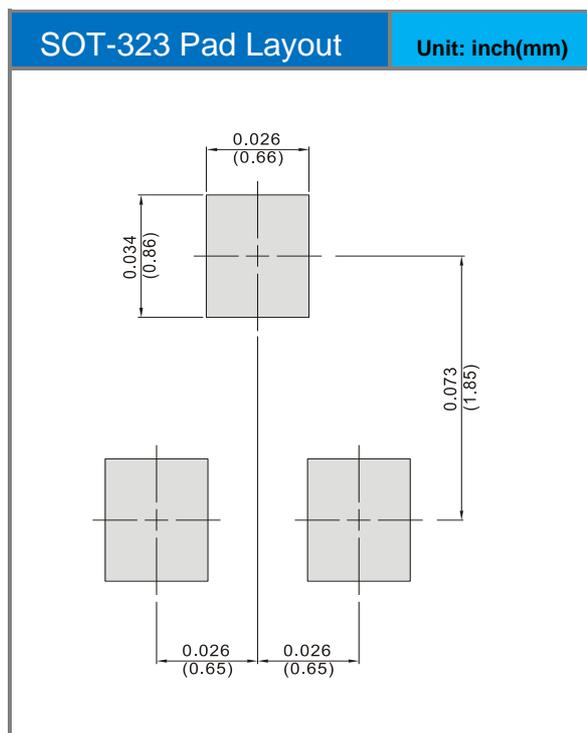
FIG. 4 POWER DERATING CURVE

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Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|----------|--------------|--------------------|---------|
| BAW56W | SOT-323 | 3K pcs / 7" reel | JC |
| BAW56W | SOT-323 | 12K pcs / 13" reel | JC |
| BAV70W | SOT-323 | 3K pcs / 7" reel | JA |
| BAV70W | SOT-323 | 12K pcs / 13" reel | JA |
| BAV99W | SOT-323 | 3K pcs / 7" reel | JB |
| BAV99W | SOT-323 | 12K pcs / 13" reel | JB |
| BAL99W | SOT-323 | 3K pcs / 7" reel | JF |
| BAL99W | SOT-323 | 12K pcs / 13" reel | JF |

Mounting Pad Layout



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